

REMARKS

1. Claims Rejections - 35 U.S.C. §102(e) – Claims 1-4, 6-20, 22-27, and 29-34

Claims 1-4, 6-20, 22-27, and 29-34 are pending in the present application, and were rejected in the Office Action dated November 16, 2004, under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,301,634 to Gomi . Applicants respectfully traverse this rejection. However, in order to provide clarification, independent claims 1, 12, 19, and 24 have been amended. Claims 2-4 and 6-11 depend from independent claim 1; claims 13-18 depend from independent claim 12; claims 20 and 22-23 depend from independent claim 19; and claims 25-27 and 29-34 depend from independent claim 24. For brevity, only the bases for the rejection of the independent claims are traversed in detail on the understanding that dependent claims are also patentably distinct over the cited references as they depend directly from their respective independent claims. Nevertheless, the dependent claims include additional features that, in combination with those of the independent claims, provide further, separate, and independent bases for patentability.

The Examiner has stated that Gomi anticipates claims 1-4, 6-20, 22-27, and 29-34 (i.e., includes each and every element of claims 1-4, 6-20, 22-27, and 29-34). However, the Gomi reference does not teach or suggest the claimed element, as amended, of “a general purpose device controller employing asynchronous true real time peripheral device control.” Notably, the control system utilized by the Gomi reference is synchronous (i.e., occurring at regular fixed time intervals), in contrast to the asynchronous (i.e., can occur at any time and at irregular time intervals) control system of the claimed invention. In the Gomi reference, events are detected at fixed intervals so that the processing associated with those events can be executed in a timely manner. Otherwise stated, in the Gomi reference, fixed time intervals are synchronized with event driven processing.

Specifically, the Gomi reference states:

“[T]he present invention comprises an external interrupt generation unit that generates interrupt signals at the fixed intervals by using an external timer. The event drive unit performs the event drive processing in synchronization with the

interrupt signals that are generated by the external interrupt generation unit.
(*emphasis added*)

See Col. 2, line 66 – Col. 3, line 4.

The Gómi reference continues:

The control method comprises an external interrupt generation step that uses an external timer to generate interrupt signals on a regular basis at fixed time intervals that are short enough for the execution of real time processing. The control method further comprises an event drive step that detects events in synchronization with the interrupt signals that are generated in the external interrupt generation step and that performs event drive processing in which the generic operating system is directed to switch to the task that executes processing associated with the detected event. (*emphasis added*)

See Col. 3, lines 8-18.

In this regard, the Gomi reference is specifically directed towards a synchronous control system in which fixed time intervals are synchronized with event driven processing in order to efficiently execute processing associated with the events to be detected by the control system. In contrast, the claimed invention is directed towards a general purpose device controller that employs asynchronous true real time peripheral device control (i.e., a control system that can initiate processing at any time and at irregular time intervals). Thus, the Gomi reference does not teach or suggest “a general purpose device controller employing asynchronous true real time peripheral device control” as recited in the claimed invention. Accordingly, Applicants respectfully submit that the 35 U.S.C. § 102(e) rejection of claims 1-34 as unpatentable over Gomi has been overcome.

2. Claims Rejections - 35 U.S.C. §103(a) – Claims 5, 21, and 28

Claims 5, 21, and 28 are pending in the present application and were rejected in the Office Action dated November 16, 2004, under 35 U.S.C. §103(a) as being anticipated by Gomi. Applicants respectfully traverse this rejection. However, in order to provide clarification, claims 1, 19, and 24 have been amended. Claims 1, 12, 19, and 24 are independent claims. Claim 5 depends from independent claim 1; claim 21 depends from independent claim 19; and

claim 21. For brevity, only the bases for the rejection of the independent claims are traversed in detail on the understanding that dependent claims are also patentably distinct over the cited references as they depend directly from their respective independent claims. Nevertheless, the dependent claims include additional features that, in combination with those of the independent claims, provide further, separate, and independent bases for patentability.

The Examiner admits that the Gomi reference does not set forth the limitation of a Universal Serial Bus being the default communication protocol between the generic device controller unit system and the processor. However, the Examiner states that it would have been obvious to one of ordinary skill in the art to use a Universal Serial Bus in the claimed invention. The shortcomings of the Gomi reference have been fully discussed above. Thus, claims 5, 21, and 28 are patentable for the same reasons as stated above in Section 1. Namely, the Gomi reference does not teach or suggest: "a general purpose device controller employing asynchronous true real time peripheral device control." Accordingly, Applicants respectfully submit that the 35 U.S.C. § 103(a) rejection of claims 5, 21, and 28 as unpatentable has been overcome.

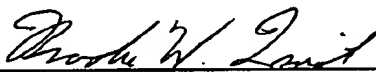
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CONCLUSION

Applicants have made an earnest and bona fide effort to clarify the issues before the Examiner and to place this case in condition for allowance. In view of the foregoing discussions, it is clear that the differences between the claimed invention and the cited references are such that the claimed invention is patentably distinct over the cited references. Therefore, reconsideration and allowance of claims 1-34 is believed to be in order, and an early Notice of Allowance to this effect is respectfully requested. If the Examiner should have any questions concerning the foregoing, the Examiner is invited to telephone the undersigned attorney at (310) 712-8319. The undersigned attorney can normally be reached Monday through Friday from about 9:30 AM to 6:30 PM Pacific Time.

Respectfully submitted,

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